



**UNITED STATES DEPARTMENT OF COMMERCE**  
**Patent and Trademark Office**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/380,340 11/29/99 DOYLE

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AIR MAIL

EXAMINER

POTHIER, D

ART UNIT

PAPER NUMBER

3764

DATE MAILED:

12/06/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.

09/380,340

Applicant(s)

DOYLE, KELVIN

Examiner

Denise M. Pothier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 November 1999 is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

## Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 18) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

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## DETAILED ACTION

### *Drawings*

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: internal wall 68 described on page 9, line 10. Correction is required.
2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "radial walls lined at an angle to one another" as recited in claim 3 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

### *Specification*

3. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.
4. This application is informal in the arrangement of the specification. The following guidelines illustrate the preferred layout and content for patent applications. These guidelines are suggested for the applicant's use.

### **Arrangement of the Specification**

The following order or arrangement is preferred in framing the specification and, except for the reference to "Microfiche Appendix" and the drawings, **each of the lettered items should appear in upper case, without underlining or bold type**, as section headings. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) Title of the Invention.
- (b) Cross-References to Related Applications.
- (c) Statement Regarding Federally Sponsored Research or Development.
- (d) Reference to a "Microfiche Appendix" (see 37 CFR 1.96).

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- (e) Background of the Invention.
  - 1. Field of the Invention.
  - 2. Description of the Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) Brief Summary of the Invention.
- (g) Brief Description of the Several Views of the Drawing(s).
- (h) Detailed Description of the Invention.
- (i) Claim or Claims (commencing on a separate sheet).
- (j) Abstract of the Disclosure (commencing on a separate sheet).
- (k) Drawings.
- (l) Sequence Listing (see 37 CFR 1.821-1.825).

5. The disclosure is objected to because of the following informalities: on pages 8-9, is unclear where the two sections of the circular wall are in the Figures. Please indicate. Also, it is unclear whether "the two part cylindrical wall" discussed on page 9 is the same as the "circular wall" discussed on page 8. Also, please show where the two parts abut at the shoulder 64.

Appropriate correction is required.

### ***Claim Objections***

6. Claims 6-8 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from another multiple dependent claim. See MPEP § 608.01(n). Accordingly, an assumption that claim 6 depends only from claim 4 and that claims 7-8 depend only from claim 1 will be made for purposes of examination.

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. Claim 1 is indefinite since there is an inconsistency between the preamble and the body of the claim, thereby making the scope of the claim unclear. It is unclear whether applicant is reciting the combination of two supports with a hinge mechanism as the body appears to indicate by positive recitation of or the subcombination of the hinge as recited in the preamble. This also applies to claim 8.

10. The recitation, "means for connecting the support members pivotally to the other end of the arm and to the plate" is indefinite. What structure makes up the "means?" The specification and the figures indicate one support is connected pivotally to one end of the arm and the other support is pivotally connected to the base plate. However, both supports are not connected pivotally to the arm and the base plate.

11. The recitations, "all of the three axes of rotation of the pivotal connections being substantially parallel" in claim 1, line 10-11 and "each of the three pivotal connections" in claim 1, lines 12-13, are indefinite. To which three axes of rotations and pivotal connections is applicant referring? The pivotal connections of the first and second supports to the hinge mechanism? The pivotal rotation of the arm against the plate at one end? The pivotal connection of the support to the other end of the arm? The

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pivotal connection of the support to the plate? In addition, how are these axes parallel to each other?

12. Claim 1 recites the limitation "the support members" in line 9. There is insufficient antecedent basis for this limitation in the claim. Applicant has previously recited "first and second supports." This rejection also applies to claims 4 and 5. For purposes of examination, an assumption that the support and support members are the same structure will be made.

13. Claim 4 recites the limitation "the pivot axis" in line 5. There is insufficient antecedent basis for this limitation in the claim. To which pivot axis is the applicant referring in claim 4? Where the metes and bounds of a claim are indefinite, it is improper to base a rejection on speculation as to the meaning of the claim. In re Steele, 305 F.2d 858, 134 USPQ 292 (CCPA 1962). Specifically, unclear claims are indefinite, not obvious. In re Wilson, 424 F.2d 1382, 185 USPQ 494 (CCPA 1970). As such, there is no art rejection with regards to claims 4-6.

14. The remaining claims are necessarily rejected because they depend from a rejected claim(s).

### ***Claim Rejections - 35 USC § 102***

15. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

16. Claims 1-3 and 8, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Radcliffe (5,168,865). Radcliffe discloses in Figures 4-7 an orthosis with two supports and a hinge mechanism, the hinge mechanism comprising a base plate (16), an arm (50) pivotally rotatable against the plate about an axis perpendicular to the plate and located at one end of the arm (at 74), a means for connecting one support pivotally to other end of the arm (at 70), and a pivotal connection of the other support to the base plate (see 64), the connections restrict the degree of rotation.

Note due to the indefiniteness in claim 1, the phrases, "means for connecting" and "means for restricting" have not been interpreted to invoke 35 USC 112, 6<sup>th</sup> paragraph.

As for claim 3, Radcliffe discloses the rotation of the arm is limited a recess portion (see Fig. 7) of the plate which is bounded by radial walls.

As for claim 8, Radcliffe discloses in column 4, lines 43-46 that the limb protector comprises a pair of hinge mechanism.

### ***Claim Rejections - 35 USC § 103***

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Radcliffe in view of De Fonce (5,009,223). Radcliffe does not disclose from what material the support members and the pivotal connection are made. De Fonce teaches in column 3, lines 10-13 that knee supports can be made from a fiber reinforced resin and that the pivotal connection includes screws, washers and nuts. The examiner takes official notice that the screws, washers and nuts are made from metal. Thus, one skilled in the knee support art would find fiber reinforced resin supports and metal pivotal connections an appropriate materials for the supporting the user.

***Allowable Subject Matter***

19. The following claim 9, drafted by the examiner and considered to distinguish patentably over the art of record in this application, is presented to applicant for consideration:

9. A limb protector including:

(a) a first and second support, the first and second supports adapted to engage a part of a limb on either side of an articulated joint; and

(b) a hinge mechanism comprising:

(i) a base plate having a recessed portion bounded by radial walls and



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(ii) an arm having a first and second end, the first end of the arm located in the recessed portion,

wherein the first support pivotally connects to the base plate, the first end of the arm pivotally rotates against the plate about an axis substantially perpendicular thereto in the recessed portion and a means for pivotally connecting the second end of the arm to the second support about an axis substantially perpendicular to the base plate and further wherein the second support has an arcuate slot and the arm has a post for engaging the arcuate slot to limit pivotal movement of the second support with respect to the arm, such that the pivotal connections are a means for restricting the degree of angular rotation of the supports and the radial walls limit the degree of angular rotation.

20. The following is a statement of reasons for the indication of the above allowable subject matter: none of the prior art of record discloses, teach or suggests a limb protector with a hinge mechanism comprising a pivotal connection of a first support to a base plate, a first end of an arm pivotally rotating against the base plate about an axis perpendicular to the base plate, a pivotal connection of the second end of the arm to a second support, the second support having an arcuate slot and the arm having a post for engaging the slot to limit the pivotal movement of the second support relative to the arm and such that the connections are a means for restricting the degree of angular rotation of the hinge mechanism.

Castillo discloses in Figures 7-12 an orthosis with two supports and a hinge mechanism, the hinge mechanism comprising a base plate, an arm (103) pivotally

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rotatable against the plate about an axis perpendicular to the plate a means for connecting one support pivotally to other end of the arm, and a pivotal connection of the other support to the base plate. In addition, Castillo discloses in Figures 9 and 12 the rotation of each support is restricted by the passage of a post (103) along a slot located on the base plate. However, Castillo does not disclose that the slot is arcuate and located on the support member. One of ordinary skill in the art would not have known to modify Castillo to overcome these deficiencies. Note that Castillo discloses in column 7, lines 16-25 one or more spacers (107,109) inserted in into the slot to limit the degree of rotation.

Rogers (5,107,824), Hauser (2,632,440), Lamb (Re. 33,621), Biedermann (5,490,822), and Aaserude (4,699,129) disclose the state of the art of knee hinges with slots and recesses to limit motion. Pansiera (4,802,467) and Hauser disclose bosses used in a bicentric knee hinge.


21. If applicant elects to adopt the above language, please cancel claim 1 and correct the dependency of claims 2-8.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Denise M. Pothier whose telephone number is 703.308.0993. The examiner can normally be reached on Monday-Thursday and alternate Fridays. The fax phone numbers for the organization where this application or

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proceeding is assigned are 703.308.3580 for regular communications and  
703.308.3580 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or  
proceeding should be directed to Everett Williams whose telephone number is  
703.305.1708.



Denise Pothier  
December 4, 2000

**ATTACHMENT TO AND MODIFICATION OF**  
**NOTICE OF ALLOWABILITY (PTO-37)**

*(November, 2000)*

**NO EXTENSIONS OF TIME ARE PERMITTED TO FILE CORRECTED OR FORMAL DRAWINGS, OR A SUBSTITUTE OATH OR DECLARATION**, notwithstanding any indication to the contrary in the attached Notice of Allowability (PTO-37).

If the following language appears on the attached Notice of Allowability, the portion lined through below is of no force and effect and is to be ignored<sup>1</sup>:

A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE **THREE MONTHS** FROM THE "DATE MAILED" of this Office action. Failure to comply will result in ABANDONMENT of this application. ~~Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).~~

Similar language appearing in any attachments to the Notice of Allowability, such as in an Examiner's Amendment/Comment or in a Notice of Draftperson's Patent Drawing Review, PTO-948, is also to be ignored.

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<sup>1</sup> The language which is crossed out is contrary to amended 37 CFR 1.85(c) and 1.136. See "Changes to Implement the Patent Business Goals", 65 Fed. Reg. 54603, 54629, 54641, 54670, 54674 (September 8, 2000), 1238 Off. Gaz. Pat. Office 77, 99, 110, 135, 139 (September 19, 2000).